

Appendix for
THE SPACE BETWEEN US
Social Geography and Politics

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Appendix for Chapter 2

In all nationwide analysis, I will show, at least, four models (see the first four columns of Table A1). Independent variables in these four models include segregation, outgroup size, outgroup-size squared, and the interaction of segregation with outgroup size and with outgroup-size squared. I always show all four of these basic models to transparently demonstrate the sensitivity of my results to model specification. In some circumstances, other models will be included to add appropriate control variables. According to my theory, the preferred model includes an interaction between segregation and outgroup size and outgroup-size squared. This preferred model will be used to estimate effect size unless it appears not to fit the data well for the particular analysis.

For most analysis, I show results for the entire country (Table A1) and for the non-South (Table A2), as defined by U.S. Census Bureau Regions. In most cases, the relationship is stronger outside the South than in it. Among other factors, this is likely related to the way segregation is measured. The patterns of segregation in the South tend to operate over too small of an area for measures based on areal units to capture variation. This is because white/Black residential patterns in the cities of the post-Civil War South developed such that white homeowners had Black servants in alleys behind their homes. This pattern is still present in Southern cities today, which means there are micro-patterns of segregation with segregated city blocks intertwined in seemingly integrated Census Tracts. Therefore, a measure which relies on these Census Tracts will not accurately capture segregation. It is also worth considering whether the dependent variable, in this case negative racial attitudes, are too heavily influenced in the South by factors, such as a long-standing culture of racism promoted by elites (e.g., Key (1949)), for geography to be influential.

Social Geography and Derogatory Google Searches

The relationship I report here comes from an OLS regression using the “Racially Charged Search” variable from Stephens-Davidowitz (2014) by DMA as a dependent variable and dissimilarity by DMA as the independent variable. DMA is used because that is the variable available from Stephens-Davidowitz (2014). There are 196 DMAs. Dissimilarity is constructed using Census Block Groups as the smaller unit. Block Group data is from the 2010 Decennial Census. Unless noted otherwise, all demographic data is from this

source. The relationship between segregation and Racially Charged Search holds when weighting the DMA's by population size and controlling for average income and percent college educated in the DMA (Columns 5–10 in Tables A1 and A2). Standard errors are clustered at the DMA level and are listed below regression coefficients in these tables. As with all tables in this book, the following symbols are used to indicate significance levels from p-values: † significant at $p < .10$; * $p < .05$; ** $p < .01$; *** $p < .001$.

Social Geography and Negative Stereotypes about Blacks from Whites

This test uses data from the 2008 Cooperative Campaign Analysis Project (CCAP). I limit the sample to non-Hispanic white voters. This yields a sample of 16,436 white voters. I combine responses to two questions about work ethic and intelligence into a single scale using the mean of the two variables. I use OLS to regress this scale on percent black and segregation within CBSAs (see Endnote 21 in Chapter 1). Standard errors are clustered at the CBSA level and the regression controls for individual household income and education as measured by college education, coded 0 or 1. See Tables A3 and A4.

Social Geography and Negative Stereotypes about Blacks from Latinos

For this analysis, I use the same methodology described above, except using Hispanic whites. The relationship between segregation, outgroup proportion, and negative attitudes is in the predicted direction and statistically significant at conventional levels for Latino attitudes towards Blacks. See Tables A5 and A6. In results not shown, attitudes of whites toward Latinos and Blacks toward Latinos are in the theoretically expected direction but have high p-values. The attitudes of Blacks toward whites and Latinos toward Anglos are in the opposite direction of theoretical expectations and have high p-values. The inconsistent results with groups other than Blacks might reflect that the stereotype questions commonly available on political science surveys, about work-ethic and intelligence, reflect stereotypes whites commonly hold about Blacks and are less commonly targeted at other groups.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
Intercept	37.55*** (5.10)	37.76*** (5.12)	23.89*** (6.98)	20.93* (8.68)	39.13*** (4.91)	39.95*** (5.02)	13.72† (8.25)	15.57 (11.23)	41.45*** (8.25)	54.77*** (9.51)
Segregation	45.32*** (10.03)	42.15*** (10.97)	73.52*** (14.31)	77.03*** (18.78)	33.54*** (8.76)	29.24** (10.34)	80.73*** (16.61)	74.07** (23.89)	91.38*** (13.65)	72.19*** (16.84)
Black Population	16.11** (5.87)	36.77* (18.44)	126.88*** (29.55)	211.50** (76.17)	10.97† (6.21)	28.17 (20.16)	127.15*** (27.76)	133.89* (64.98)	84.35** (26.51)	49.08 (56.79)
Segregation x Black Population		-30.38 (21.03)		-145.63 (109.26)		-25.55 (25.16)		-3.99 (82.93)		67.48 (78.34)
Black Population ²			-221.49*** (56.86)	-346.18* (149.55)			-211.53*** (54.09)	-188.25 (130.20)	-130.58* (51.78)	4.33 (108.92)
Segregation x Black Population ²				224.83 (210.61)				-45.66 (161.51)		-227.86 (143.85)
Average Income									-0.00 (0.00)	-0.00 (0.00)
Percent College									-100.06** (34.98)	-82.39** (31.23)
N	196	196	196	196	196	196	196	196	196	196
R ²	0.10	0.10	0.13	0.14	0.09	0.10	0.16	0.16	0.38	0.41
adj. R ²	0.09	0.09	0.12	0.12	0.08	0.09	0.14	0.14	0.36	0.39
Resid. sd	18.87	18.86	18.53	18.55	16663.84	16653.32	16113.51	16123.19	13882.35	13602.12

Table A1: Regression of racially charged Google searches on social geography in United States

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10
Intercept	24.33** (7.25)	24.26** (7.30)	25.54** (8.08)	31.01** (9.78)	27.47** (8.54)	24.69** (7.80)	15.01 (9.52)	40.70** (14.62)	49.75** (9.76)	64.64** (12.24)
Segregation	70.72*** (17.18)	72.36*** (18.12)	68.78*** (18.22)	63.96* (24.40)	50.38* (19.71)	48.19* (19.17)	69.52** (20.84)	32.30 (35.86)	73.87*** (15.19)	43.50 (26.58)
Black Population	-28.63 (28.81)	-51.64 (64.89)	-64.47 (107.50)	-622.95* (266.17)	13.46 (27.40)	90.35 (60.52)	163.38* (72.01)	-807.44*** (180.13)	159.42† (89.94)	-556.15** (207.62)
Segregation x Black Population		84.96 (178.94)		3345.56* (1381.52)		-226.24 (148.76)		4135.17*** (767.95)		2915.03** (964.95)
Black Population ²			54.29 (150.53)	833.76† (427.37)			-215.26* (97.91)	1204.80*** (342.46)	-174.97 (112.66)	887.06** (330.30)
Segregation x Black Population ²				-4650.62* (1930.93)				-5903.19*** (1024.76)		-4228.72** (1280.17)
Average Income									-0.00 (0.00)	-0.00 (0.00)
Percent College									-89.44† (46.35)	-93.49* (42.09)
N	110	110	110	110	110	110	110	110	110	110
R ²	0.17	0.17	0.17	0.19	0.22	0.24	0.25	0.33	0.46	0.50
adi. R ²	0.16	0.15	0.15	0.15	0.21	0.22	0.22	0.29	0.43	0.47
Resid. sd	18.32	18.40	18.40	18.37	16529.97	16437.58	16375.62	15625.83	13985.54	13594.56

Table A2: Regression of racially charged Google searches on social geography in non-South.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Intercept	4.86*** (0.05)	5.04*** (0.07)	4.85*** (0.05)	5.04*** (0.08)	4.79*** (0.05)	4.97*** (0.07)	4.78*** (0.05)	4.97*** (0.08)
Segregation	-0.04 (0.10)	-0.45** (0.17)	-0.02 (0.11)	-0.44* (0.20)	-0.06 (0.10)	-0.46** (0.16)	-0.03 (0.11)	-0.46* (0.20)
Black Population	-0.34** (0.12)	-1.57*** (0.32)	-0.43† (0.23)	-1.48* (0.68)	-0.36** (0.11)	-1.56*** (0.32)	-0.46* (0.22)	-1.56* (0.67)
Segregation x Black Population		2.32*** (0.64)		2.18 (1.49)		2.28*** (0.63)		2.27 (1.46)
Black Population ²			0.11 (0.28)	-0.17 (1.26)			0.14 (0.28)	-0.01 (1.22)
Segregation x Black Population ²				0.28 (2.75)				0.03 (2.67)
Income					0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
College Educated					0.12*** (0.02)	0.12*** (0.02)	0.12*** (0.02)	0.12*** (0.02)
N	16,436	16,436	16,436	16,436	16,436	16,436	16,436	16,436
R ²	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
adj. R ²	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Resid. sd	1.46	1.46	1.46	1.46	1.46	1.46	1.46	1.46

Table A3: Regression of endorsement by whites of negative stereotypes for Blacks on social geography in United States

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Intercept	5.00*** (0.06)	5.05*** (0.07)	5.00*** (0.06)	5.04*** (0.10)	4.94*** (0.07)	5.00*** (0.07)	4.95*** (0.07)	4.99*** (0.10)
Segregation	-0.37* (0.17)	-0.46*** (0.17)	-0.30 (0.19)	-0.42 (0.28)	-0.38* (0.17)	-0.47*** (0.17)	-0.30 (0.18)	-0.42 (0.27)
Black Population	0.03 (0.24)	-0.73 (0.75)	-0.64 (0.79)	-1.18 (2.22)	0.01 (0.24)	-0.78 (0.73)	-0.72 (0.77)	-1.36 (2.19)
Segregation x Black Population		1.15 (1.00)		1.42 (4.28)		1.20 (0.98)		1.60 (4.22)
Black Population ²			1.61 (1.69)	1.95 (6.65)			1.76 (1.67)	2.46 (6.61)
Segregation x Black Population ²				-1.98 (11.92)				-2.59 (11.74)
Income					0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
College Educated					0.11*** (0.03)	0.11*** (0.03)	0.11*** (0.03)	0.11*** (0.03)
<i>N</i>	10,904	10,904	10,904	10,904	10,904	10,904	10,904	10,904
<i>R</i> ²	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
adi. <i>R</i> ²	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Resid. sd	1.45	1.45	1.45	1.45	1.45	1.45	1.45	1.45

Table A4: Regression of endorsement by whites of negative stereotypes for Blacks on social geography in non-South

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Intercept	5.31*** (0.23)	5.42*** (0.27)	5.33*** (0.24)	5.87*** (0.29)	5.23*** (0.27)	5.34*** (0.30)	5.25*** (0.27)	5.79*** (0.32)
Segregation	-0.80 (0.55)	-1.04 (0.63)	-0.78 (0.54)	-2.09** (0.70)	-0.80 (0.56)	-1.05 (0.64)	-0.78 (0.55)	-2.09** (0.70)
Black Population	-0.06 (0.04)	-0.19 (0.15)	-0.13 (0.11)	-1.20** (0.46)	-0.06 (0.04)	-0.19 (0.15)	-0.13 (0.11)	-1.20* (0.47)
Segregation x Black Population		0.28 (0.29)		2.49* (1.05)		0.28 (0.29)		2.49* (1.06)
Black Population ²			0.01 (0.02)	0.20* (0.08)			0.01 (0.02)	0.20* (0.08)
Segregation x Black Population ²				-0.42* (0.18)				-0.42* (0.18)
Income					0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)
College Educated					0.00 (0.10)	0.00 (0.10)	0.01 (0.10)	0.03 (0.10)
N	860	860	860	860	860	860	860	860
R ²	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.02
adj. R ²	0.01	0.01	0.01	0.01	0.00	0.00	0.00	0.01
Resid. sd	1.47	1.47	1.47	1.47	1.47	1.47	1.47	1.47

Table A5: Regression of endorsement by Latinos of negative stereotypes about Blacks on social geography in United States

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Intercept	5.42*** (0.27)	5.59*** (0.31)	5.44*** (0.26)	5.92*** (0.33)	5.26*** (0.33)	5.42*** (0.37)	5.26*** (0.32)	5.74*** (0.38)
Segregation	-1.12† (0.67)	-1.48† (0.76)	-1.06 (0.65)	-2.28*** (0.80)	-1.13† (0.67)	-1.49† (0.77)	-1.07 (0.66)	-2.27*** (0.80)
Black Population	-0.06 (0.05)	-0.30† (0.17)	-0.16 (0.14)	-1.08* (0.43)	-0.06 (0.05)	-0.30† (0.18)	-0.17 (0.14)	-1.07* (0.44)
Segregation x Black Population		0.46 (0.32)		2.15* (0.97)		0.46 (0.32)		2.13* (0.99)
Black Population ²			0.02 (0.02)	0.16* (0.07)			0.02 (0.02)	0.16* (0.07)
Segregation x Black Population ²				-0.32† (0.17)				-0.32† (0.17)
Income					0.02 (0.02)	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)
College Educated					0.01 (0.14)	0.01 (0.14)	0.02 (0.14)	0.03 (0.14)
<i>N</i>	522	522	522	522	522	522	522	522
<i>R</i> ²	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.03
adj. <i>R</i> ²	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01
Resid. sd	1.46	1.46	1.46	1.46	1.46	1.46	1.47	1.46

Table A6: Regression of endorsement by Latinos of negative stereotypes about Blacks on social geography in non-South

Social Geography and Aggregate Vote Choice in 2008

The precinct level data comes from the Harvard Election Data Archive ([Ansolabehere and Rodden, 2011](#)). I estimate the white population in each precinct by spatially joining the data with 2010 Census Block Groups using a Geographic Information System. I estimate percent Obama vote among whites using the ecological methods described in [King \(1997\)](#) and implemented in R using [King and Roberts \(2012\)](#).

I regress these ecological estimates on CBSA level social geography. Standard errors are clustered at the CBSA level. Results are displayed in Tables [A7](#) and [A8](#). This excludes Oregon, which doesn't have geographic precincts. All models include state fixed effects and percent of vote for Kerry in 2004 and are weighted by precinct population. In Models 5–8, I include controls for the Black population in the precinct and precinct white median income (imputed from the Census Block Group).

Social Geography and Individual Vote Choice in 2008

This analysis uses data from the 2008 Cooperative Congressional Election Study (CCES) and, essentially, repeats the design used above to analyze survey attitudes except with only self-reported independents included. This analysis is limited to whites, although the relationship holds when all non-Blacks are included. Standard errors are clustered at the CBSA level. Results are displayed in Tables [A9](#) and [A10](#). Note that this is a situation where the results vary significantly depending on whether Southern states are included or not. Additionally, when the South is included, the results are particularly sensitive to the inclusion of state fixed effects, with effects losing statistical significance in many cases.

Social Geography and Voter Turnout

To find this, I use a similar methodology as that described in the survey analysis of attitudes and vote choice above, except segregation is measured at the DMA level because that was the available geographic identifier. For simplicity, I construct segregation and outgroup proportion against all outgroups, so, for example for Blacks, segregation is calculated as the dissimilarity against all non-Blacks. The results hold using individual outgroups

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
(Intercept)	0.62**** (0.00)	0.64**** (0.00)	0.62**** (0.00)	0.62**** (0.00)	0.54**** (0.00)	0.56**** (0.00)	0.54**** (0.00)	0.55**** (0.00)
Dissimilarity	-0.03**** (0.00)	-0.07**** (0.01)	-0.03**** (0.00)	-0.04**** (0.01)	0.02**** (0.00)	-0.04**** (0.01)	0.01** (0.00)	-0.03**** (0.01)
Black Population (CBSA)	-0.09**** (0.01)	-0.28**** (0.02)	-0.09**** (0.02)	0.04 (0.04)	-0.31**** (0.01)	-0.55**** (0.02)	-0.26**** (0.02)	-0.28**** (0.04)
Dissimilarity x Black Population (CBSA)		0.39**** (0.03)		-0.27**** (0.08)		0.49**** (0.03)		0.05 (0.07)
Black Population (CBSA) ²				-0.87**** (0.10)			-0.10** (0.03)	-0.72**** (0.09)
Dissimilarity x Black Population (CBSA) ²				1.80**** (0.20)			1.23**** (0.03)	1.23**** (0.09)
Democratic Vote 2004	-0.11**** (0.00)	-0.11**** (0.00)	-0.11**** (0.00)	-0.11**** (0.00)	-0.09**** (0.00)	-0.09**** (0.00)	-0.09**** (0.00)	-0.09**** (0.00)
Black Population (precinct)					0.26**** (0.00)	0.27**** (0.00)	0.26**** (0.00)	0.27**** (0.00)
White Median Income					-0.00**** (0.00)	-0.00**** (0.00)	-0.00**** (0.00)	-0.00**** (0.00)
State Fixed Effects	X	X	X	X	X	X	X	X
N	124,034	124,034	124,034	124,034	118,531	118,531	118,531	118,531
R ²	0.48	0.48	0.48	0.48	0.56	0.56	0.56	0.56
adj. R ²	0.48	0.48	0.48	0.48	0.56	0.56	0.56	0.56
Resid. sd	5.09	5.09	5.09	5.09	4.62	4.61	4.62	4.61

Table A7: Regression of white Obama vote at precinct-level on social geography in United States

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
(Intercept)	0.64*** (0.00)	0.63*** (0.00)	0.64*** (0.00)	0.62*** (0.00)	0.62*** (0.00)	0.61*** (0.00)	0.62*** (0.00)	0.60*** (0.00)
Dissimilarity	-0.12*** (0.01)	-0.09*** (0.01)	-0.12*** (0.01)	-0.02* (0.01)	-0.10*** (0.01)	-0.08*** (0.01)	-0.10*** (0.01)	-0.01 (0.01)
Black Population (CBSA)	0.06*** (0.01)	0.42*** (0.04)	0.10** (0.04)	-0.57*** (0.12)	-0.06*** (0.01)	0.20*** (0.04)	-0.08* (0.04)	-0.53*** (0.12)
Dissimilarity x Black Population (CBSA)		-0.55*** (0.05)		0.04 (0.19)		-0.39*** (0.05)		-0.15 (0.19)
Black Population (CBSA) ²			-0.16 (0.13)	7.68*** (0.77)			0.10 (0.13)	5.99*** (0.74)
Dissimilarity x Black Population (CBSA) ²				-8.21*** (1.11)				-5.80*** (1.08)
Democratic Vote 2004	-0.13*** (0.00)	-0.13*** (0.00)	-0.13*** (0.00)	-0.13*** (0.00)	-0.11*** (0.00)	-0.11*** (0.00)	-0.11*** (0.00)	-0.11*** (0.00)
Black Population (precinct)					0.20*** (0.00)	0.20*** (0.00)	0.20*** (0.00)	0.20*** (0.00)
White Median Income					-0.00*** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)
State Fixed Effects	X	X	X	X	X	X	X	X
N	94,536	94,536	94,536	94,536	90,283	90,283	90283	90283
R ²	0.40	0.40	0.40	0.41	0.45	0.45	0.45	0.45
adj. R ²	0.40	0.40	0.40	0.41	0.45	0.45	0.45	0.45
Resid. sd	4.55	4.55	4.55	4.54	4.33	4.33	4.33	4.33

Table A8: Regression of white Obama vote at precinct-level on social geography in non-South

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Intercept	0.28*** (0.04)	0.28*** (0.04)	0.30*** (0.05)	0.35*** (0.06)	0.25*** (0.04)	0.25*** (0.04)	0.27*** (0.05)	0.32*** (0.06)
Segregation	0.04 (0.08)	0.04 (0.09)	-0.01 (0.11)	-0.16 (0.14)	0.03 (0.08)	0.03 (0.09)	-0.01 (0.11)	-0.16 (0.14)
Black Population	-0.15*** (0.05)	-0.16* (0.08)	-0.29 (0.25)	-1.11* (0.49)	-0.15*** (0.05)	-0.17* (0.08)	-0.28 (0.25)	-1.09* (0.48)
Segregation x Black Population			0.28 (0.47)	2.07† (1.06)			0.24 (0.47)	2.01† (1.05)
Black Population^2		0.01 (0.04)		1.57* (0.79)		0.01 (0.04)		1.56* (0.78)
Segregation x Black Population^2				-3.32* (1.68)				-3.27† (1.67)
Income					0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
College Educated					0.06* (0.02)	0.06* (0.02)	0.06* (0.02)	0.06* (0.02)
N	2,147	2,147	2,147	2,147	2,147	2,147	2,147	2,147
R ²	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01
adj. R ²	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01
Resid. sd	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44

Table A9: Regression of individual white Obama vote on social geography in United States

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Intercept	0.38*** (0.05)	0.38*** (0.05)	0.35*** (0.06)	0.44*** (0.08)	0.33*** (0.05)	0.34*** (0.05)	0.30*** (0.06)	0.39*** (0.08)
Segregation	-0.22† (0.12)	-0.26* (0.12)	-0.16 (0.14)	-0.43* (0.21)	-0.22† (0.12)	-0.26* (0.13)	-0.17 (0.14)	-0.43* (0.21)
Black Population	0.27 (0.21)	0.50 (0.44)	0.74† (0.40)	-1.03 (1.00)	0.25 (0.21)	0.47 (0.44)	0.72† (0.40)	-1.00 (1.01)
Segregation x Black Population			-0.73 (0.64)	3.83 (2.33)			-0.73 (0.63)	3.68 (2.32)
Black Population ²		-0.49 (0.96)		4.17* (1.81)		-0.47 (0.94)		4.07* (1.80)
Segregation x Black Population ²				-10.88* (4.83)				-10.55* (4.79)
Income					0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
College Educated					0.07* (0.03)	0.07* (0.03)	0.07* (0.03)	0.07* (0.03)
N	1,475	1,475	1,475	1,475	1,475	1,475	1,475	1,475
R ²	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01
adj. R ²	0.00	0.00	0.00	0.00	0.01	0.00	0.01	0.01
Resid. sd	0.46	0.46	0.46	0.46	0.46	0.46	0.46	0.46

Table A10: Regression of individual white Obama vote on social geography in non-South

too.

I also include state-level fixed-effects. It is important to be clear that the expected relationship does not hold without these fixed effects, but I believe they are justified in analyzing turnout because voter turnout, being so dependent on campaigns for mobilization, will vary dramatically between states depending on the level of campaign activity in the state. I use data purchased from the data vendor Catalist, a firm that works with Democratic campaigns. The coding of the race variables comes from Catalist. They code this by sometimes taking self-reported race directly from the state voter files and sometimes using their own imputation, mostly using name and demographic data from Census location—a methodology similar to what I did in a published article (Enos, 2016) and elsewhere in the book.

I summarize these results for 2012 in Tables A11 and A12. Standard errors are clustered at the DMA level. These results are robust and stronger when the South is not included and the same pattern holds for all years going back to 2004. Control variables are gender, family income, and party affiliation. Estimation without the covariates increases the N, but yields similar results. In the interest of space, I omit results for alternative specifications and other years.

If the number of voters seems high, it is because these records include redundancies and problems with removing people when they die or leave the state. Indeed, there are significant political fights over how aggressively to purge the voter lists. Republicans often seek more aggressive purging because of the perception that those who are more likely to be frequent movers, such as the poor and racial minorities, are more likely to be Democrats. For the inverse reason, Democrats prefer less aggressive purging.

Instrumental Variable on Social Geography and Aggregate Vote Choice in 2008

In Table A13, I repeat the analysis from Column 5 of Table A8, except first using the Ananat (2011) railroad data as an instrument for segregation. The F-statistic on the first stage is $F = 692.5$, indicating a very strong instrument.

	Black	Latino	White
Intercept	0.66*** (0.02)	0.69*** (0.05)	0.76*** (0.02)
Segregation	0.17*** (0.03)	0.07 (0.07)	0.08** (0.03)
Outgroup Population	0.00** (0.00)	-0.00 (0.00)	0.04 (0.03)
Outgroup Population ²	-0.00 [†] (0.00)	0.00 (0.00)	0.00 (0.00)
Segregation x Outgroup Population	-0.00*** (0.00)	0.00 (0.00)	-0.08 [†] (0.05)
Segregation x Outgroup Population ²	0.00* (0.00)	-0.00 (0.00)	-0.01 (0.01)
Covariates	X	X	X
State Fixed Effects	X	X	X
N	29, 199, 677	20, 276, 857	165, 944, 937
R ²	0.20	0.20	0.17
adj. R ²	0.20	0.20	0.17
Resid. sd	0.80	0.66	0.91

Table A11: Regression of individual turnout on social geography in United States in 2012

	Black	Latino	White
Intercept	0.67*** (0.05)	0.53*** (0.05)	0.74*** (0.03)
Segregation	0.12 [†] (0.07)	0.23*** (0.06)	0.13*** (0.04)
Outgroup Population	0.00 [†] (0.00)	0.01* (0.00)	0.02 (0.10)
Outgroup Population ²	-0.00 [†] (0.00)	-0.00 [†] (0.00)	0.01 (0.02)
Segregation x Outgroup Population	-0.00*** (0.00)	-0.00 (0.00)	-0.08 (0.14)
Segregation x Outgroup Population ²	0.00* (0.00)	0.00 (0.00)	-0.01 (0.05)
Covariates	X	X	X
State Fixed Effects	X	X	X
N	12, 452, 816	13, 334, 484	106, 623, 008
R ²	0.21	0.24	0.18
adj. R ²	0.21	0.24	0.18
Resid. sd	0.76	0.66	0.93

Table A12: Regression of individual turnout on social geography in non-South 2012

	Model 1
(Intercept)	0.89*** (0.03)
Dissimilarity	-0.58*** (0.09)
Black Population (CBSA)	0.47*** (0.12)
Democratic Vote 2004	-0.16*** (0.00)
Black Population (precinct)	0.20*** (0.00)
White Median Income	-0.00*** (0.00)
State Fixed Effects	X
<i>N</i>	41,792
<i>R</i> ²	0.42
adj. <i>R</i> ²	0.42
Resid. sd	4.69

Table A13: Instrumental variable regression of white Obama vote at precinct-level on social geography in United States

Appendix for Chapter 4

People have “Maps in their Heads”

This survey reached subjects through a combination of recruitment techniques, including the Harvard Digital Lab for the Social Sciences (DLABSS), a volunteer online laboratory (Enos et al., 2017), and Facebook advertising. Subjects were shown the outlines of Census Block Groups that intersected the ZIP code they entered. Subjects could choose the background for the map from a menu of options and zoom in and out. The correct answers were displayed upon completion of the survey.

I restrict analysis to Anglo whites. The proportion of accurate responses for each group are shown in Table A14. Subjects could skip a group so the N varies across groups. Accuracy can be measured at different geographic levels by aggregating the Census Block Group the subject chose to larger geographic units. I tested accuracy by placement in the correct Census Block Group, correct Census Tract, or the correct Block Group and adjacent to the correct Block Group (neighbors). Chance is the probability of finding the correct area by chance, which is $1/J$, where J is the number of each of these units (or clusters of units in the case of neighbors) in the ZIP code. In analysis not shown, I also found that accuracy is largely insensitive to length of time living in the ZIP code.

	Chance	Asian	Black	Hispanic	White
Tracts	0.08	0.19	0.20	0.18	0.23
Block Groups	0.04	0.10	0.11	0.09	0.08
Block Groups and Neighbors	0.42	0.51	0.53	0.50	0.55
N		1035	1184	1106	1310

Table A14: Mean accuracy of geographic placement of different groups

I test for the relationship between accuracy and segregation using OLS and regressing an indicator variable coded 1 for correct placement and 0 if not correct placement on segregation at the CBSA level (measured by the group against all outgroups) and the percent of the group in the CBSA and the probability of being correct by chance alone. These results for each group are in Tables A15 and A16. Standard errors are clustered at the CBSA level.

“People in my study who were good at placing groups in the correct location were no better than other respondents at guessing the percentage

	Asian	Black	Hispanic	White
Intercept	0.06 (0.07)	0.01 (0.05)	-0.07 (0.05)	0.10 (0.09)
Segregation	-0.07 (0.18)	0.20* (0.09)	0.19† (0.10)	-0.06 (0.09)
Group Population	0.09 (0.12)	-0.15* (0.06)	-0.01 (0.02)	0.02 (0.09)
Proportion Chance	1.61*** (0.27)	1.37*** (0.22)	1.96*** (0.28)	1.50*** (0.26)
<i>N</i>	778	912	840	989
<i>R</i> ²	0.09	0.06	0.07	0.06
adj. <i>R</i> ²	0.08	0.05	0.07	0.06
Resid. sd	0.36	0.38	0.34	0.39

Table A15: Accuracy of geographic placement of different groups and segregation in United States

	Asian	Black	Hispanic	White
Intercept	0.03 (0.08)	-0.03 (0.06)	-0.05 (0.05)	0.11 (0.12)
Segregation	-0.01 (0.21)	0.32* (0.16)	0.15 (0.13)	-0.09 (0.11)
Group Population	0.10 (0.12)	-0.34 (0.27)	0.01 (0.03)	0.02 (0.11)
Proportion Chance	1.83*** (0.37)	1.51*** (0.32)	1.65*** (0.30)	1.67*** (0.38)
<i>N</i>	502	570	527	631
<i>R</i> ²	0.10	0.07	0.06	0.07
adj. <i>R</i> ²	0.10	0.06	0.05	0.07
Resid. sd	0.37	0.39	0.34	0.39

Table A16: Accuracy of geographic placement of different groups and segregation in non-South

of that group in their ZIP code” can be seen in Figure A1. In this figure, I show the mean proportion correctly placing the group in space (y-axis) by the absolute deviation of guesses from the true proportion of a group in a Zip code. Deviation of guesses from the true proportion are binned and points are scaled by number respondents in each bin. The variables have no apparent relationships, except perhaps among the responses about whites.

Measuring Comparative Fit

This sample includes 790 white subjects recruited from DLABSS and a sample of 1313 purchased from Qualtrics. I limited to white subjects and removed the top and bottom 5 percent of time spent on the task in order to try to eliminate people rushing through the survey, which reduces the sample size to 319 and 1210, for DLABSS and Qualtrics, respectively (the Qualtrics sample was a quota sample of only whites). There were also DLABSS subjects who did not finish rating the faces (this study had a rather high attrition rate, probably because rating 110 faces is a lengthy and repetitive task). There is arguably reason to have ex-ante more confidence in the validity of results from a DLABSS sample for this sort of study because the DLABSS sample is a volunteer sample and is less likely to rush through the task or otherwise shirk.

Subjects were shown the images in random order. They were given the following instructions:

On the following screens, you will see a series of faces, some of a Black person and some of a White person. We would like you to label each face as “White” or “Black,” using your best judgment.

Some faces may be of mixed race heritage, but please choose the label Black or White that most closely represents the person’s face.

With your keyboard, use the “e” key to choose White and the “i” key to choose Black.

The assignment of a key to category was randomized to be balanced across Black and white.

Following [Krosch and Amodio \(2014\)](#), I calculated PSE by fitting each subject’s responses to a cumulative normal function and finding the point at

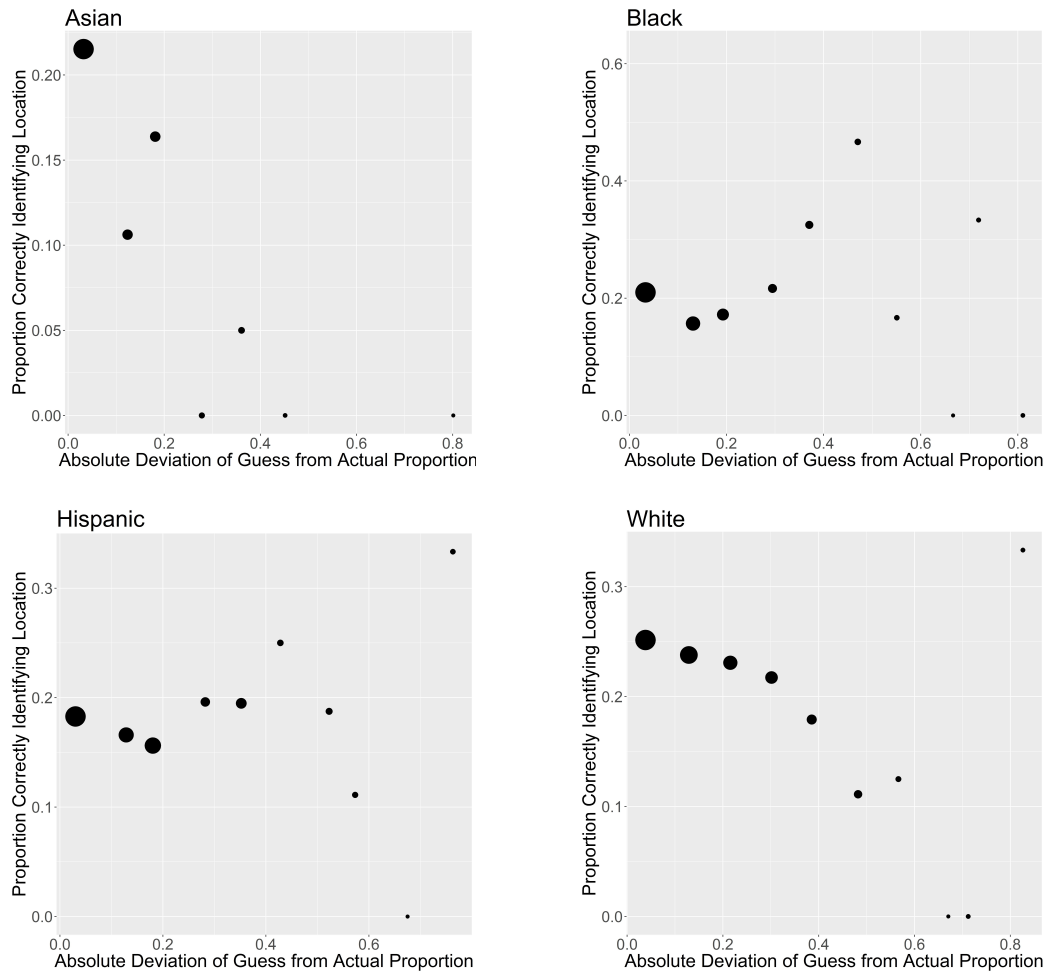


Figure A1: Absolute Deviation of Guess from Actual Population Proportion by Proportion Correctly Identifying Location

which the curve crossed 0.5 on the y-axis, which represents an equal probability of categorizing the face as white or Black.

Pooling across both samples, the median PSE among white subjects was 0.51 and the mean was 0.48. Using their ZIP codes, I matched subjects to their CBSAs and regressed their PSEs on social geography and individual demographics, including self-reported individual contact with members of the outgroup ("Contact"), using the index from [Islam and Hewstone \(1993\)](#). Like other results in this book, the relationship with social geography is stronger outside the South. Standard errors are clustered at the CBSA level. DLABSS sample is in Tables [A17](#) and [A19](#) and Qualtrics sample see Table [A18](#) and [A20](#).

Experiments on Segregation

Length

I recruited subjects on Amazon's Mechanical Turk for five separate trials, with a total of 1,008 subjects across all five trials (55% female, mean age = 32.98 years, $SD = 11.96$).

The lines were of varying length with two identical sets of blue and red lines. The stimuli, including the length of all lines and which line was marked, were identical across the Integrated and Segregated conditions, except for the integration and segregation of lines by color group. In a single trial, each subject was exposed to each stimulus of interest (Tall and Short Integrated and Tall and Short Segregated) in random order, with four distraction stimuli included, each for five seconds. The distraction stimuli were similar randomly placed assortments of lines, but without the identical line lengths of the stimuli of interest.

Line lengths were created by sampling from a normal distribution of lengths with $\mu \approx 176px$ and $sd \approx 88px$. These lines were placed on an $480x480px$ image, of which $396x353px$ was used to display lines. Images were rescaled to $500x500px$ when displayed to subjects over an Internet browser. On a typical laptop monitor, $500px$ is usually about $11cm$ and about $18cm$ on a typical desktop.

In each trial, each subject was exposed to one set of 10 possible different sets of lines, with the lengths of lines consistent across conditions within each of the 10 sets. The lengths and spatial placement of lines were randomly generated for each set. Different stimuli were created for each trial, for a

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Intercept	0.55*** (0.03)	0.57*** (0.04)	0.55*** (0.03)	0.57*** (0.04)	0.56*** (0.04)	0.58*** (0.05)	0.56*** (0.04)	0.58*** (0.05)
Segregation	-0.15* (0.06)	-0.19* (0.07)	-0.13* (0.07)	-0.18† (0.10)	-0.14* (0.06)	-0.18* (0.07)	-0.13* (0.07)	-0.18† (0.10)
Black Population	0.00 (0.04)	-0.16 (0.17)	-0.05 (0.12)	-0.12 (0.47)	0.01 (0.04)	-0.16 (0.17)	-0.03 (0.11)	-0.06 (0.46)
Segregation x Black Population		0.29 (0.28)		0.20 (0.72)		0.29 (0.28)		0.16 (0.71)
Black Population ²			0.06 (0.12)	-0.07 (0.80)			0.04 (0.12)	-0.18 (0.80)
Segregation x Black Population ²				0.13 (1.11)				0.27 (1.12)
Income					-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
College Educated					0.02 (0.02)	0.02 (0.02)	0.02 (0.02)	0.02 (0.02)
Contact					-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)
<i>N</i>	319	319	319	319	319	319	319	319
<i>R</i> ²	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03
adj. <i>R</i> ²	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.00
Resid. sd	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14

Table A17: Regression of individual “Point of Subjective Equality” on social geography in United States, DLABSS sample

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Intercept	0.49*** (0.01)	0.52*** (0.02)	0.49*** (0.01)	0.52*** (0.02)	0.50*** (0.02)	0.53*** (0.02)	0.49*** (0.02)	0.52*** (0.02)
Segregation	-0.00 (0.03)	-0.08* (0.04)	0.03 (0.03)	-0.05 (0.05)	-0.01 (0.03)	-0.08* (0.04)	0.02 (0.03)	-0.04 (0.05)
Black Population	-0.02 (0.03)	-0.20* (0.08)	-0.15** (0.06)	-0.35*** (0.13)	-0.02 (0.03)	-0.19* (0.08)	-0.15** (0.05)	-0.31* (0.13)
Segregation x Black Population		0.33* (0.14)		0.38 (0.29)		0.30* (0.14)		0.31 (0.28)
Black Population ²			0.13* (0.06)	0.15† (0.08)			0.13* (0.06)	0.13 (0.08)
Segregation x Black Population ²				-0.05 (0.20)				-0.01 (0.19)
Income					0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
College Educated					0.01 (0.01)	0.01 (0.01)	0.01 (0.01)	0.01 (0.01)
Contact					-0.01 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
<i>N</i>	1210	1210	1210	1210	1210	1210	1210	1210
<i>R</i> ²	0.00	0.01	0.01	0.02	0.01	0.01	0.02	0.02
adj. <i>R</i> ²	0.00	0.01	0.01	0.01	0.00	0.01	0.01	0.01
Resid. sd	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14

Table A18: Regression of individual “Point of Subjective Equality” on social geography in United States, Qualtrics sample

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Intercept	0.57*** (0.03)	0.59*** (0.04)	0.57*** (0.03)	0.62*** (0.05)	0.58*** (0.05)	0.59*** (0.05)	0.57*** (0.05)	0.62*** (0.06)
Segregation	-0.19*** (0.07)	-0.21* (0.09)	-0.15 (0.10)	-0.23* (0.12)	-0.17*** (0.07)	-0.20* (0.08)	-0.15 (0.10)	-0.23* (0.11)
Black Population	0.04 (0.05)	-0.15 (0.39)	-0.11 (0.27)	-1.68 (1.15)	0.03 (0.05)	-0.15 (0.38)	-0.08 (0.27)	-1.75 (1.25)
Segregation x Black Population		0.29 (0.63)		2.53 (1.76)		0.29 (0.62)		2.69 (1.90)
Black Population ²			0.23 (0.34)	4.97 (3.28)			0.15 (0.34)	5.23 (3.54)
Segregation x Black Population ²				-7.57 (5.06)				-8.09 (5.47)
Income					0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
College Educated					0.03 (0.03)	0.03 (0.03)	0.03 (0.03)	0.03 (0.03)
Contract					-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)
<i>N</i>	214	214	214	214	214	214	214	214
<i>R</i> ²	0.03	0.03	0.03	0.04	0.05	0.06	0.06	0.06
adj. <i>R</i> ²	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.03
Resid. sd	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14

Table A19: Regression of individual “Point of Subjective Equality” on social geography in non-South, DLABSS sample

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8
Intercept	0.52*** (0.02)	0.53*** (0.02)	0.52*** (0.02)	0.54*** (0.03)	0.52*** (0.02)	0.53*** (0.02)	0.52*** (0.02)	0.54*** (0.03)
Segregation	-0.07† (0.04)	-0.08* (0.04)	-0.07 (0.04)	-0.10 (0.06)	-0.07† (0.04)	-0.08† (0.04)	-0.06 (0.04)	-0.10 (0.07)
Black Population	0.02 (0.03)	-0.11 (0.17)	-0.00 (0.10)	-0.46 (0.28)	0.02 (0.03)	-0.11 (0.16)	-0.01 (0.10)	-0.43 (0.29)
Segregation x Black Population		0.19 (0.25)		0.70 (0.47)		0.19 (0.24)		0.65 (0.48)
Black Population ~ 2			0.03 (0.11)	0.82† (0.44)			0.03 (0.11)	0.73 (0.46)
Segregation x Black Population ~ 2				-1.17* (0.55)				-1.05† (0.58)
Income					0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
College Educated					0.00 (0.01)	0.00 (0.01)	0.00 (0.01)	0.00 (0.01)
Contact					-0.00 (0.01)	-0.00 (0.01)	-0.00 (0.01)	-0.00 (0.01)
<i>N</i>	708	708	708	708	708	708	708	708
<i>R</i> ²	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
adj. <i>R</i> ²	0.00	0.00	0.00	0.00	-0.00	-0.00	-0.00	-0.00
Resid. sd	0.14	0.14	0.14	0.14	0.14	0.14	0.14	0.14

Table A20: Regression of individual “Point of Subjective Equality” on social geography in non-South, Qualtrics sample.

	Integrated (SD)	Segregated (SD)	Difference (SE)	T value	CI	p	N
1	5.39 (16.23)	3.7 (17.55)	1.69 (0.37)	4.55	[0.96,2.42]	0.00	201
2	6.34 (6.41)	4.78 (7.41)	1.56 (0.55)	2.83	[0.48,2.64]	0.00	203
3	7.17 (13.35)	6.01 (10.13)	1.16 (0.53)	2.18	[0.12,2.2]	0.02	203
4	4.4 (6.58)	3.7 (13.61)	0.7 (0.9)	0.78	[-1.05,2.46]	0.22	200
5	6.24 (16.6)	3.68 (8.55)	2.56 (0.72)	3.54	[1.14,3.98]	0.00	201
Pooled	5.91 (12.67)	4.38 (12.03)	1.53 (0.31)	4.98	[0.93,2.14]	0.00	1,008

Table A21: Results of the lines experiment

total of 50 different sets of stimuli used across the 5 trials. The marked lines could be either red or blue within each of the ten sets of stimuli, but for each subject, the marked line was always of the same color.

Subjects were asked to judge the length of the marked line in centimeters using an open text response. I chose centimeters as the unit of measurement based on the design of [Corneille et al. \(2002\)](#), who argued, in a replication of [Tajfel and Wilkes \(1963\)](#), that subjects were more likely to rely on heuristic judgments when using an unfamiliar unit. All subjects were living in the United States, so centimeters is a generally unfamiliar unit.

The quantity of interest is the difference between the perceived length of the Tall and Short lines between the Integrated and Segregated conditions. For each trial, I measured within-subjects difference-in-differences and used a T-test on the difference of means and then pooled the results across trials and asses the pooled difference-in-differences with cluster-robust standard errors. The hypothesis is directional, so I report one-tailed p-values, but the rejection of the null-hypothesis at conventional levels of significance is insensitive to this decision.

Pooled result: $\beta = 1.53$, $SE = 0.31$, $t = 4.98$, $p < .001$, $95\%CI[0.93, 2.14]$; Integrated condition: $\mu = 5.9\text{cm}$, $SD = 12.7$. In [Table A21](#). for each trial I display the mean difference in response for the Tall and Short lines in the Integrated condition and the Segregated condition and the difference-in-differences; T-statistic for a test that the difference-in-differences is greater than 0; the 95% confidence interval, the P-value associated with a one-tailed test, and the N.

Ratio of long to short lines in reality (averaged across five trials of experiment) was 1.73. As perceived in the integrated condition, the ratio was 1.95 and as perceived in the segregated condition, it was 1.64.

Color

I recruited subjects on Amazon’s Mechanical Turk for five separate trials, with a total of 1,010 subjects across all five trials (45% female, mean age = 30.50 years, $SD = 11.07$).

In a single trial, each subject was exposed to each stimulus of interest (Light and Dark Integrated and Light and Dark Segregated) in random order, with four distraction stimuli included, each for five seconds. The distraction stimuli were similar randomly placed assortments of squares, but without the identical color values of the stimuli of interest.

The values of blue squares were represented by color values in the range $(0, 0, [127, 255])$ in the RGB color model. Red squares were represented by values in the range $([127, 255], 0, 0)$. The darkest squares were represented by $(0, 0, [223, 255])$ for blue and $([223, 255], 0, 0)$ for red. The lightest squares were represented by $(0, 0, [127, 159])$ for blue and $([127, 259], 0, 0)$ for red. All other squares were in the range $(0, 0, [175, 207])$ or $([175, 207], 0, 0)$. Before being exposed to the actual stimulus, subjects were shown the sliding scale from 1 to 100 and example color scales ranging from $(0, 0, [127, 255])$ and $([127, 255], 0, 0)$, so each integer on the scale represented 1.28 units in the red or blue components of the RGB space. When shown the actual stimuli, the color scales were not displayed and subjects were asked to use the slider from memory. The composite images of 30 squares were displayed as $500 \times 500 \text{px}$ images.

In each trial, each subject was exposed to one set of 10 possible different sets of squares, with the values of squares consistent across conditions within each of the 10 sets. The values and spatial placement of squares were randomly generated for each set. Different stimuli were created for each trial, for a total of 50 different sets of stimuli used across the 5 trials. The marked squares could be either red or blue within each of the ten sets of stimuli, but for each subject, the marked square was always of the same color.

Subjects were asked to judge the color of the marked square on a sliding scale of 0 to 100, with 0 representing the lightest blue (red) and 100 representing the darkest blue (red). The quantity of interest is the difference between the perceived color of the Light and Dark squares between the Integrated and Segregated conditions. For each trial, I measured a within-subjects difference-in-differences and used a T-test on the difference of means. I then pooled the results across trials and assessed the pooled difference-in-differences with cluster-robust standard errors. The hypothesis is directional,

	Integrated (SD)	Segregated (SD)	Difference (SE)	T value	CI	p	N
1	63.52 (29.39)	60.87 (30.68)	2.66 (2.02)	1.31	[-1.31,6.62]	0.10	202
2	68.96 (24.63)	63.85 (25.74)	5.11 (1.84)	2.78	[1.51,8.71]	0.00	200
3	68.32 (27.31)	66.29 (29.31)	2.03 (1.7)	1.19	[-1.31,5.37]	0.12	208
4	59.84 (27.08)	57.57 (26.77)	2.27 (1.98)	1.15	[-1.6,6.15]	0.13	200
5	65.4 (28.84)	62.54 (30.11)	2.86 (1.68)	1.70	[-0.44,6.16]	0.05	200
Pooled	65.23 (27.65)	62.25 (28.69)	2.98 (0.55)	5.44	[1.91,4.05]	0.00	1,010

Table A22: Results of the Colored Square Experiment

so I report one-tailed p-values, but the rejection of the null-hypothesis at conventional levels of significance is insensitive to this decision.

Pooled result: $\beta = 2.98$, $SE = 0.55$, $t = 5.44$, $p < .001$, $95\%CI[1.91, 4.05]$; Integrated condition: $\mu = 65.2$, $SD = 27.7$ on a 100-point scale. In Table A22 for each trial I display the mean difference in response for the Dark and Light squares in the Integrated condition and the Segregated condition and the difference-in-differences; T-statistic for a test that the difference-in-differences is greater than 0; the 95% confidence interval, the P-value associated with a one-tailed test, and the N.

Appendix for Chapter 5

Social Geography and 2016 Presidential Election

I construct county-level measures of percent change in Hispanic population between 2000 and 2014 using the 2000 Decennial Census and American Community Survey 2010–2014 five year estimates. Hispanic is measured by the count of Hispanics of all races. The American Community Survey estimates include margins of error from sampling variability. I do not account for this error in this analysis. County-level election returns are obtained from *CQ Press* and *Town Hall/The Guardian*.

	Model 1	Model 2	Model 3	Model 4
(Intercept)	−0.03*** (0.00)	−0.00 (0.01)	−0.03*** (0.00)	−0.05*** (0.01)
Percent Hispanic Growth 2000–2014	0.03*** (0.00)	0.01*** (0.00)	0.04*** (0.00)	0.02*** (0.00)
State-fixed Effects		X		X
<i>N</i>	3111	3111	1689	1689
<i>R</i> ²	0.08	0.48	0.10	0.55
adj. <i>R</i> ²	0.08	0.47	0.10	0.54
Resid. sd	17.40	13.22	20.25	14.47

Table A23: Regression of shift in county Trump vote and Hispanic Population Growth

OLS regression results are in Table [A23](#) for the entire United States (columns 1 and 2) and non-South (columns 3 and 4). Regressions are weighted by total population in 2014. County-level shifts in 2008 and 2012 are displayed in Figures [A2](#) and [A3](#), respectively. Y-axis is county percent for McCain minus county percent for Bush in 2004 and county percent for Romney minus county percent for McCain in 2008, respectively. In both figures the diagonal line is OLS regression line and points are scaled by total population in 2014.

In the 2016 individual-level analysis, I use the November 18–21 Harvard Center for American Politics Monthly Poll, which is an Internet-based nationally representative survey of American adults conducted by National Research Group. In the 2012 individual-level analysis, I use the 2012 Cooperative Congressional Election Study. A nationally representative You-Gov

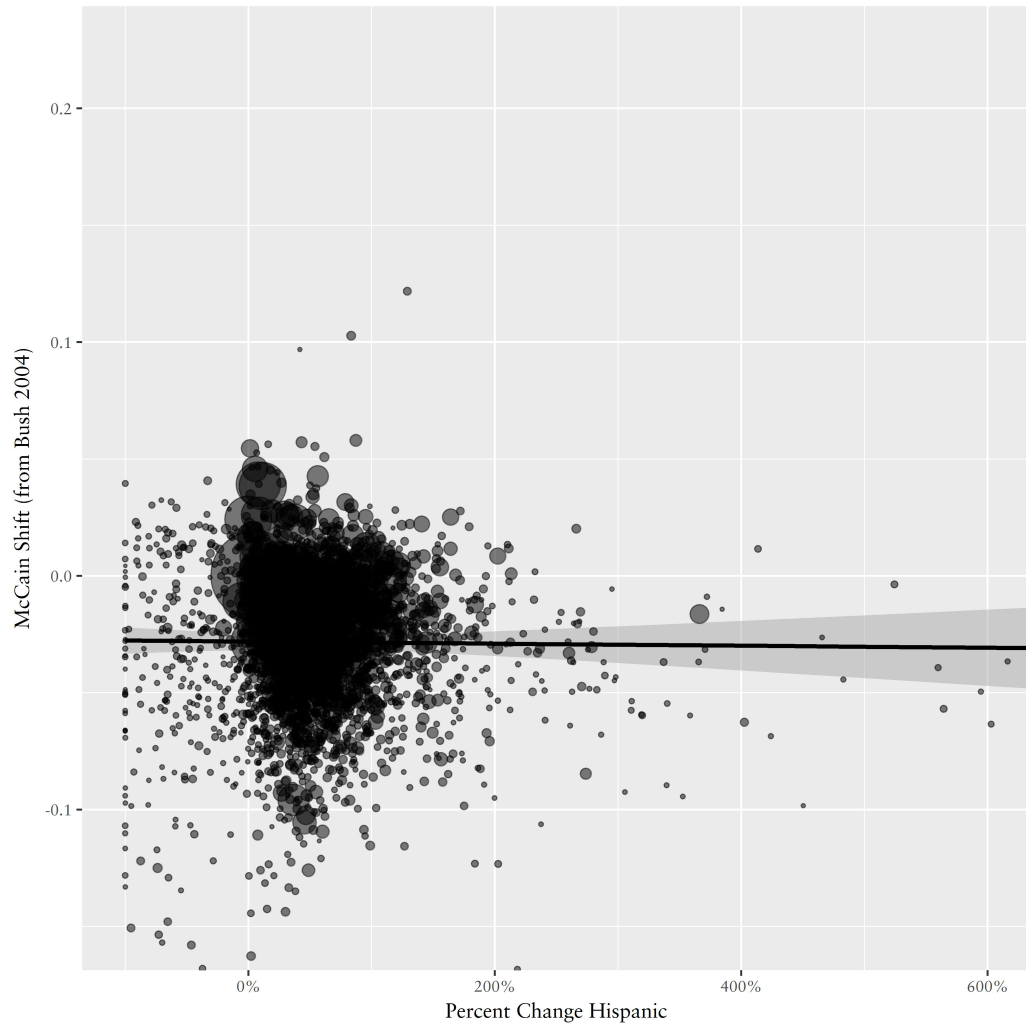


Figure A2: County change in percent Hispanic, 2000–2014 and McCain vote shift

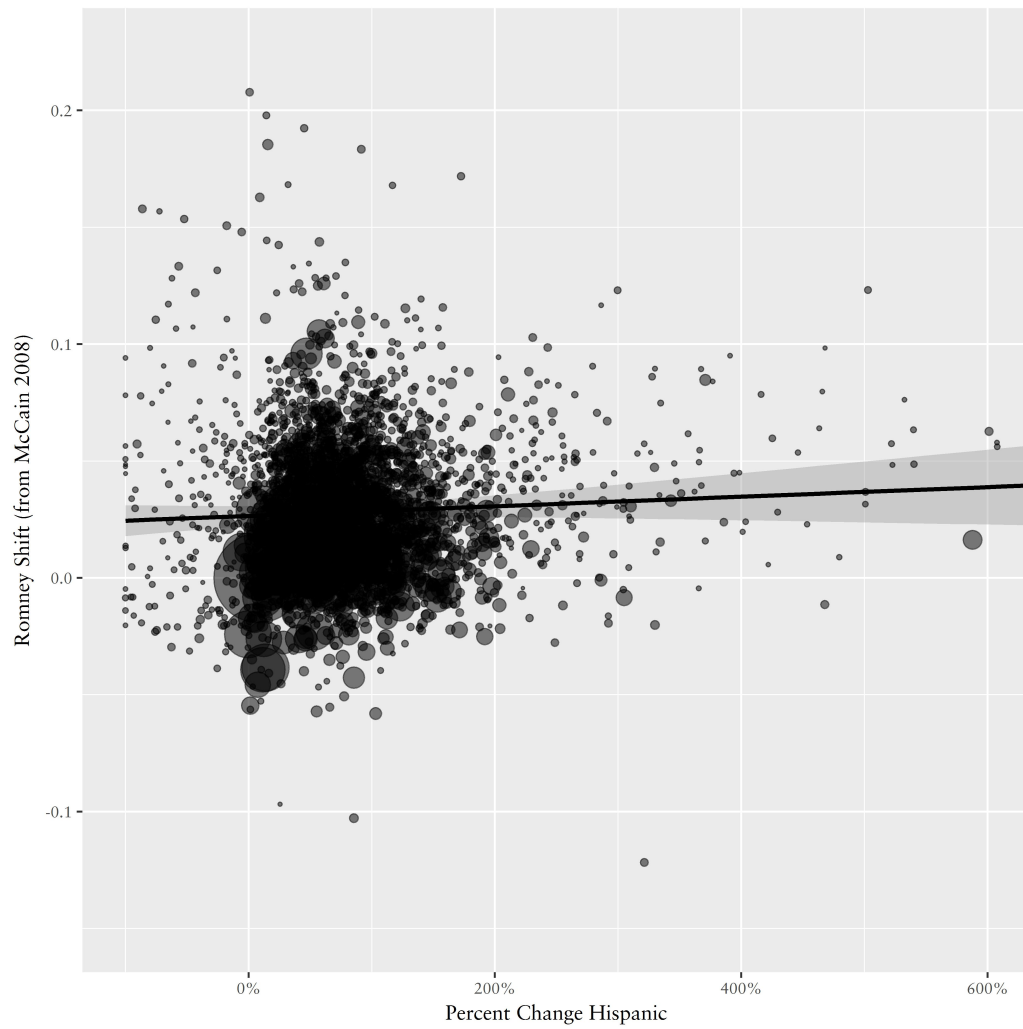


Figure A3: County change in percent Hispanic, 2000–2014 and Romney vote shift

	Model 1	Model 2	Model 3	Model 4
(Intercept)	0.03 (0.05)	-0.13* (0.06)	0.03 (0.05)	-0.05 (0.05)
Percent Hispanic Growth 2000–2014	0.04 (0.04)	0.09* (0.04)	0.06 (0.04)	0.11* (0.04)
Male	0.01 (0.02)	0.00 (0.03)	0.00 (0.03)	0.00 (0.03)
Income	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)	-0.00 (0.00)
Age	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)	0.00 (0.00)
State-fixed Effects		X		X
<i>N</i>	569	569	410	410
<i>R</i> ²	0.01	0.10	0.01	0.09
adj. <i>R</i> ²	0.00	0.02	0.00	0.01
Resid. sd	0.30	0.29	0.30	0.30

Table A24: Regression of individual Trump vote and Hispanic Population Growth

Polimetrix Internet-based sample of 54,535 American adults.

Individual results in 2016 are in Table [A24](#). The results from 2012 are in Table [A25](#). The analysis is limited to Democrats. The same regression on Republicans or Independents yields null results. I control for gender here, while not doing so in previous tests because of the presumed strong role of gender on vote choice, given the presence of woman as a major party nominee.

	Model 1	Model 2	Model 3	Model 4
(Intercept)	0.05*** (0.01)	0.11*** (0.03)	0.04*** (0.01)	-0.01 (0.01)
Percent Hispanic Growth 2000–2014	0.02*** (0.00)	0.00 (0.01)	0.01* (0.01)	0.00 (0.01)
Male	-0.00 (0.00)	-0.00 (0.00)	0.00 (0.01)	0.00 (0.01)
Income	-0.00*** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)	-0.00*** (0.00)
Age	0.00 (0.00)	0.00† (0.00)	0.00† (0.00)	0.00* (0.00)
State-fixed Effects		X		X
<i>N</i>	11681	11681	8320	8320
<i>R</i> ²	0.00	0.02	0.00	0.01
adj. <i>R</i> ²	0.00	0.02	0.00	0.01
Resid. sd	0.24	0.24	0.22	0.22

Table A25: Regression of individual Romney vote and Hispanic Population Growth

Appendix for Chapter 7

For details on the measurement of demographics and segregation in Israel see [Enos and Gidron \(2016\)](#).

Cooperation

Bias in cooperation is measured as the proportion cooperating with the in-group versus the proportion cooperating with the outgroup. Separately for secular and ultra-Orthodox, OLS was used to regress cooperation on segregation, outgroup proportion, and the interaction of these variables, while controlling for gender, age, ethnicity (Ashkenazi, Sephardic, mixed, other), ideology, non-Jewish percent in the city, income, high school graduate (0/1), immigrant to Israel (0/1), and whether the respondent lives in Jerusalem (0/1) and interpersonal contact. Contact is coded 0 or 1, with 1 being subjects who said they interacted with the outgroup on a daily basis. This variable should lead to less bias in cooperation. Segregation and outgroup proportion are measured at the city level, except in Jerusalem, where it is measured at the Quarter level. OLS estimates are in Table [A26](#), Columns 1, 2, and 3 for ultra-Orthodox respondents and Columns 4, 5, and 6, for secular. Standard errors are clustered at the city or Quarter level. The results in Columns 1, 2, 4, and 5 are identical to those in [Enos and Gidron \(2016\)](#). In these models and consistent with [Enos and Gidron \(2016\)](#), I do not use outgroup proportion squared because secular and ultra-Orthodox represent opposite ends of the range of outgroup proportion.

Table [A27](#) shows the results for bias in task partner selection, measured by bias in choosing the ingroup member over the outgroup member in order to put together the box of Legos. The results in Columns 1, 2, 4, and 5 are identical to those in [Enos and Gidron \(2016\)](#).

Trust

Outgroup distrust was measured on a four point scale, with responses of “none,” “little,” “some,” and “a lot.” This question was asked about several different groups, but here I just analyze the results for the primary outgroup of interest. To analyze the relationship with social geography, the responses were reversed to be coded with “none” taking on the value of 4, so higher

	ultra-Orthodox						Secular	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6		
Intercept	-0.42 (0.54)	-1.21** (0.36)	-1.23*** (0.37)	0.46*** (0.13)	0.58* (0.28)	0.55* (0.26)		
Segregation	1.47 (1.58)	3.87** (1.20)	4.02*** (1.27)	-0.35 (0.29)	-0.50† (0.27)	-0.49† (0.25)		
Outgroup Proportion	0.84 (0.76)	1.82*** (0.54)	1.90** (0.57)	-1.02† (0.61)	-1.46** (0.51)	-1.44** (0.47)		
Segregation x Outgroup Proportion	-1.91 (2.04)	-4.77** (1.49)	-4.94** (1.56)	1.46 (1.67)	2.54† (1.35)	2.52† (1.30)		
Contact			-0.09 (0.07)			0.03 (0.13)		
Covariates		X	X		X	X		
<i>N</i>	200	200	200	189	189	189		
<i>R</i> ²	0.01	0.11	0.12	0.03	0.06	0.06		
adj. <i>R</i> ²	-0.00	0.03	0.04	0.01	-0.02	-0.03		
Resid. sd	0.42	0.41	0.41	0.43	0.44	0.44		

Table A26: Regression of bias in cooperation on social geography

	ultra-Orthodox			Secular		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Intercept	-0.27 (0.79)	-1.25 (0.99)	-1.30 (0.99)	0.89*** (0.17)	1.04*** (0.26)	1.14*** (0.27)
Segregation	1.49 (1.78)	3.72 (2.87)	3.96 (2.89)	-0.26 (0.35)	-0.15 (0.33)	-0.17 (0.33)
Outgroup Proportion	1.06 (1.14)	1.62 (1.28)	1.76 (1.29)	-1.50*** (0.51)	-1.59*** (0.56)	-1.66*** (0.59)
Segregation x Outgroup Proportion	-1.86 (2.48)	-4.12 (3.31)	-4.40 (3.34)	3.09*** (1.19)	2.88* (1.19)	2.93* (1.21)
Contact			-0.14* (0.06)			-0.08 (0.08)
Covariates		X	X		X	X
N	193	193	193	183	183	183
R ²	0.02	0.17	0.19	0.03	0.08	0.08
adj. R ²	0.01	0.10	0.11	0.01	-0.00	-0.01
Resid. sd	0.50	0.47	0.47	0.42	0.42	0.42

Table A27: Regression of bias in task selection on social geography

numbers mean *more* distrust. The analysis is identical to the approach used with cooperation and results are presented in Table [A28](#).

Sharing in Dictator Game

Bias in sharing was measured by the difference in NIS shared with the in-group minus the outgroup. The analysis is identical to the approach used with cooperation and results are presented in Table [A29](#). The results in Columns 1, 2, 4, and 5 are identical to those in [Enos and Gidron \(2016\)](#).

Sharing Neighborhoods and a Nation

Preferred Social Distance from the outgroup is measured on the 7-point scale with the categories noted in the text and higher numbers corresponding to more exclusion. With this dependent variable, I use the same analysis as above and results are reported in Table [A30](#). These results are insensitive to other specifications, including dichotomizing this variable at the mean and using an ordered-probit analysis.

	ultra-Orthodox			Secular		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Intercept	0.91 (0.83)	0.26 (0.76)	0.16 (0.68)	2.41*** (0.22)	1.86* (0.75)	1.68* (0.83)
Segregation	2.70 (1.74)	4.26** (1.31)	4.94*** (1.14)	0.26 (0.50)	0.26 (0.36)	0.29 (0.38)
Outgroup Proportion	2.10* (0.99)	2.48*** (0.73)	2.83*** (0.61)	-2.41*** (0.65)	-3.37*** (0.39)	-3.21*** (0.44)
Segregation x Outgroup Proportion	-4.05† (2.16)	-5.51** (1.77)	-6.31*** (1.54)	2.77 (1.73)	4.87*** (0.96)	4.72*** (0.91)
Contact			-0.39*** (0.09)			0.17 (0.23)
Covariates		X	X		X	X
N	197	197	197	187	187	187
R ²	0.03	0.11	0.17	0.07	0.14	0.15
adj. R ²	0.01	0.04	0.09	0.05	0.07	0.07
Resid. sd	0.77	0.76	0.73	0.84	0.83	0.83

Table A28: Regression of outgroup distrust on social geography

	ultra-Orthodox			Secular		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Intercept	-7.41 (13.76)	-6.46 (14.37)	-6.97 (14.13)	6.97** (2.27)	11.92† (6.45)	12.57† (6.76)
Segregation	32.12 (27.86)	30.87 (32.67)	33.79 (32.83)	-12.16* (5.64)	-12.77* (5.98)	-12.87* (5.93)
Outgroup Proportion	11.86 (16.03)	4.87 (16.70)	6.47 (16.86)	-33.02*** (8.36)	-41.27*** (8.43)	-41.83*** (9.34)
Segregation x Outgroup Proportion	-35.54 (32.88)	-31.21 (38.15)	-34.70 (38.39)	74.87** (23.26)	94.19*** (23.95)	94.69*** (24.31)
Contact			-1.74† (0.94)			-0.58 (2.82)
Covariates		X	X		X	X
<i>N</i>	200	200	200	189	189	189
<i>R</i> ²	0.03	0.09	0.11	0.03	0.09	0.10
adj. <i>R</i> ²	0.02	0.02	0.03	0.01	0.02	0.01
Resid. sd	7.18	7.16	7.13	8.18	8.16	8.18

Table A29: Regression bias in sharing on social geography

	ultra-Orthodox			Secular		
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Intercept	1.26 [†] (0.64)	1.71 [†] (1.00)	1.57 [†] (0.94)	4.45*** (0.48)	3.83*** (0.95)	3.67*** (1.15)
Segregation	6.06*** (1.41)	2.78 (2.14)	3.90 [†] (2.12)	-2.51* (1.05)	-2.44* (0.98)	-2.42* (0.98)
Outgroup Proportion	3.17*** (1.19)	1.66 (1.48)	2.24 (1.49)	-7.40*** (1.24)	-7.79*** (1.48)	-7.64*** (1.51)
Segregation x Outgroup Proportion	-8.85*** (2.51)	-4.43 (3.01)	-5.75 [†] (2.99)	13.40*** (2.99)	14.74*** (3.45)	14.62*** (3.43)
Contact			-0.73*** (0.21)			0.15 (0.44)
Covariates		X	X		X	X
N	197	197	197	185	185	185
R ²	0.04	0.23	0.23	0.06	0.15	0.15
adj. R ²	0.03	0.16	0.16	0.05	0.07	0.07
Resid. sd	1.31	1.22	1.22	1.53	1.51	1.51

Table A30: Regression of outgroup exclusion on social geography

Appendix for Chapter 8

Proximity and Group-based Voting among Latinos

These results were originally reported in a conference paper (Enos, 2009).

There were 273 precincts that were at least 90 percent Latino. To examine the relationship between Latino Obama vote and proximity to African Americans, I first looked for spatial structure in voting by using Moran's I to look for spatial autocorrelation—a sign that something in geography, such as proximity to Blacks, is driving voting.

See Table A31 for spatial autocorrelation in support for Obama in Latino precincts. The p-value can be interpreted as the probability that the observed spatial correlation would occur by chance. Moran's I was generated using a $k = 3$ nearest-neighbor weights matrix. There is clearly spatial structure in the data.

Moran's I	0.18
Alternative	-0.00
p	0.00
N	273

Table A31: Spatial autocorrelation in support for Obama

Once I determined there was spatial structure in the data, I looked for the effect of $\log(\text{distance})$ using an OLS regression with percent Obama vote as the dependent variable, weighting the regression by ballots cast in the precinct. Results are reported in Table A32. I control for $\log(\text{median income})$, percent Hispanic immigrant, and percent college educated in the precinct, as imputed from 2000 Census data (the only data available when this analysis was originally conducted). As predicted by my theory, there was a relationship for Obama voting in Latino precincts and their proximity to Black precincts.

Priming Social-geography

Randomization was separate for Blacks and Latinos, so effects are estimated separately for each group. Pooling both the ingroup and outgroup treatments, the effect on turnout for Blacks was 3.2 percentage points and 1.6

Intercept	0.22 (0.16)
log(Distance)	0.01 [†] (0.00)
log(Median Income)	-0.01 (0.01)
Percent Immigrant	-0.09* (0.04)
Percent College Educated	0.08 (0.19)
<i>N</i>	259
<i>R</i> ²	0.07
adj. <i>R</i> ²	0.06
Resid. sd	0.67

Table A32: Effect of distance from Black precincts on Latino vote for Obama

percentage points for Latinos. For Blacks, that effect can reject a null hypothesis of no effect with $p < .1$ (two-tailed test). There is a null effect for Latinos.

It is important to emphasize that the difference in effects between the two treatments is model-dependent. In the sample, there is imbalance by design in three key variables: the difference in turnout displayed on the letter, the distance between blocks that were compared, and the homogeneity of the block to which the letter recipient's block was being compared. Latinos and Blacks have different baseline levels of segregation and of voter turnout. Since deception was not used, there is imbalance across these variables between treatments. Distance to the comparison block and its homogeneity have little variation; between 0.12 and 0.24 kilometers difference in distance in the inner-quartile range and between 0.82 and 0.98 percent of the outgroup in the inner-quartile range. Those variables are entered into OLS regression as controls. The difference in comparison turnout, on the other hand, ranges substantially, from 0.45 to 0.73 in the inner-quartile range. I therefore subset the regression by this variable. I estimate treatment effects using OLS with individual controls for previous turnout, party identification, and age. Standard errors are clustered at the city block level. Without the subsetting, the coefficients for Latinos on the outgroup treatment is 0.01 and on the ingroup treatment is 0.02 and for Blacks the same coefficients are

	Black	Latino
<i>Intercept</i>	-0.25 *	0.04
	(0.09)	(0.05)
<i>Different</i>	0.06 [†]	0.00
	(0.04)	(0.03)
<i>Same</i>	0.02	0.04
	(0.03)	(0.02)
Covariates	X	X
N	892	1274
R^2	0.31	0.11
Adjusted R^2	0.30	0.10
Resid. sd	0.40	0.30
<i>Different - Same</i>	0.05	-0.03
F-statistic	(1.13)	(0..85)

Table A33: Effect of priming social geography on voter turnout

0.03 and 0.02.

In the subsets, I compare the differences between treatments using F-statistic from a Wald test. Results for the inner-quartile range of turnout distance are reported in Table A33. Note that restricting the sample to the inner-third percentile makes the F-statistic much larger, but the results I report the inner quartile because it is more intuitive. However, note that the difference between treatments is not present for subjects in the upper and lower percentiles of turnout distance.

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